

REMARKS

The Official Action of 5 December 2007 has been carefully considered and reconsideration of the application as amended is respectfully requested.

Claim 73 has been amended to incorporate the recitations formerly in claim 77 (now canceled), and to recite that the stand-off member component is tubular in accordance with the description in the specification as filed at, for example, page 27, lines 6-9.

Claims 75, 76, 79 and 84 have been amended to remove the bases for the claim objections appearing on page 2 of the Official Action. All claims as amended are respectfully believed to be free of informalities and sufficiently definite to satisfy the dictates of 35 USC 112, second paragraph.

Certain claims stand rejected under 35 USC 102(b) as allegedly being anticipated by Dudley et al. Other claims stand rejection under 35 USC 103(a) as allegedly being unpatentable over Dudley et al, either alone or in view of one or more of Nielson et al, Backofen, Jr. et al, and Brown. Applicants respectfully traverse these rejections.

All claims as amended include the following features:

(a) a shaped explosive charge,

(b) a cutting sheet liner,
(c) a tubular stand-off member, and
(d) a flexible plasticized metal composite tamping carapace at least partially enveloping components (a) to (c). These features are not shown or suggested in the cited references, as next discussed.

Dadley disclosed a linear charge element and includes the components of a stand-off element, a liner and an explosive material. These components, it is submitted however, are not at least partially enclosed by a tamping carapace as claimed.

In Dadley, the partially enclosing casing (features 6 in Fig. 1) is described as composed of expanded polyethylene (page 1 column 2 line 125), and is characterized as being of low density (page 2 column 1 line 11 referring to Fig. 3). The sides of this casing may be provided with “stiffening means” in the form of embedded metal strips (at line 19).

There is no disclosure of this casing acting as a tamping carapace; the stiffening strips only serving to limit “lateral bending” (page 2 column 1 line 23). Nor is there any indication that the casing could be formed as a dense, non-toxic, flexible plasticized metal composite. Applicants respectfully submit that the tamping carapace of the claimed invention is a significant novel and inventive differentiating feature over the disclosure of the reference.

Applicants respectfully note that, in regard to the Nielsen reference, the

inclusion of metal carbides and other particles in the cutting sheet liner is for the purpose of providing an exothermic reaction. This is a completely different application of such particles to that of the claimed invention in which the use of metal carbides is purely to enhance penetration of a target.

Similarly, the inclusion of barium sulphate in Brown is for a quite different purpose to the use of that material in the device of the claimed invention. In Brown, this material is used to add density to the polythene casing simply to stop the shattered remnants of that casing floating to the surface in an underwater use of the device. In the claimed invention, this compound is again used to enhance the penetration capability of the charge element.

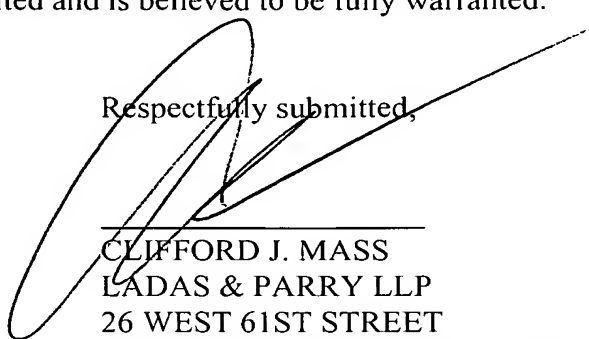
Last but not least, there is no disclosure in either Dadley or in any of the other cited references of the tubular stand-off member as now recited in claim 73. The stand-off member in Dadley is a foam material, while that in Brown is a container structure. Neither Nielsen or Backofen describes any stand-off member.

Applicants therefore submit that none of the prior art references of record shows or suggests the combination of features of a tubular stand-off member and a dense tamping carapace as recited in claim 73 as amended. In particular, none of the references teaches towards the particular feature of a tubular stand-off member which, as described in the specification, provides the advantage of inflation of the stand-off component when the charge element is to be used under water. Accordingly, Applicants respectfully submit that claim 73 is both novel and nonobvious over the

cited prior art.

Accordingly, Applicants respectfully submit that all rejections and objections of record have been overcome and that the application is now in allowable form. An early notice of allowance is earnestly solicited and is believed to be fully warranted.

Respectfully submitted,



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